

Unit 1 What is Money?

10/27/15

1.1 Money Defined

What is money?

happiness, paper to get you through life,
form of payment, motivation, trade money
to get stuff, currency, riches, luxury,
something only some people have

Avarice is the root of all evil.

Any article or substance used as a
medium of exchange, measure of wealth,
or means of payment

1.1 Money Defined

10/27/15

IWBAT

- Explain what money is
- Describe the different forms it can take.

Via

- Capturing notes on my graphic organizer/note frame
- Whole class discussions to introduce and clarify key concepts
- Completing practice problems collaboratively with teacher support

1.1 Money Defined

10/27/15

Economy - the sum of all of the goods and services of a region

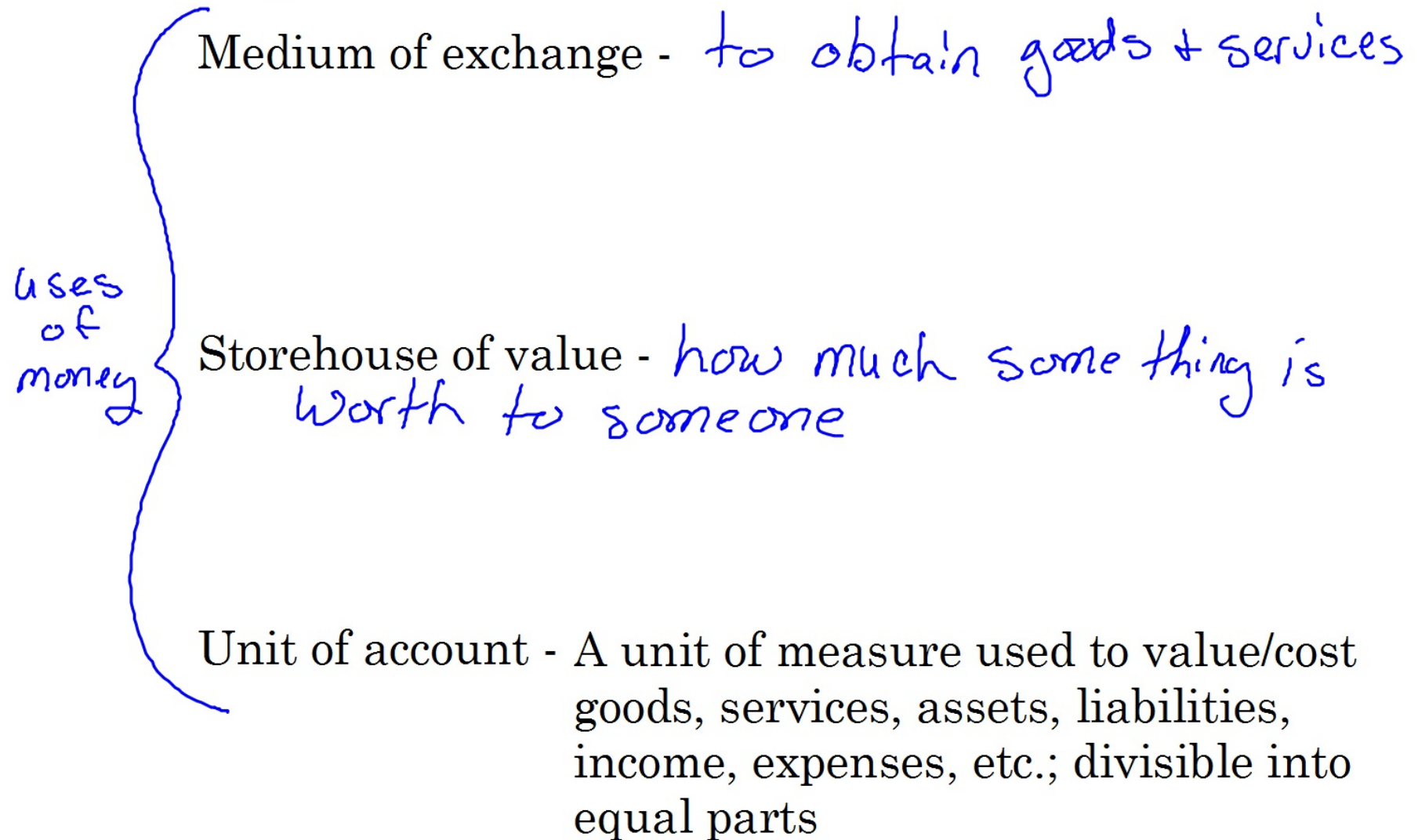
Money - anything that is traded for goods or services

Bartering - trading goods and services for other goods and services

IWBAT explain what money is and describe the different forms it can take.

1.1 Money Defined

10/27/15



IWBAT explain what money is and describe the different forms it can take.

1.1 Money Defined

10/27/15

Commodity money - is backed by physical items that have value - gold, silver, diamonds, ...
US Dollar post-Civil War to 1971

Fiat money - is backed by the faith people have in it
US Dollar after 1971

IWBAT explain what money is and describe the different forms it can take.

1.1 Money Defined

10/27/15

Digital money - *exists only in a computer -
cannot felt, seen, smelled, ...*

Currency - the money used by a country or region,
e.g. dollars & pesos

IWBAT explain what money is and describe the different forms it can take.

1.1 Money Defined

10/27/15

Vocabulary: Appendix A.3 Key Terms

Practice: 1.1.2 #2-9

Exit Ticket: What are the three uses of money?

IWBAT explain what money is and describe the different forms it can take.

1.2 How Money is Created

10/28/15

What are the three uses of money and how do they differ?

medium of exchange - give money to get goods or services

storehouse of value - how much something is worth

unit of account - value of savings & investments

1.2 How Money is Created

10/28/15

Let's review yesterday's Practice Problems.

3) Commodity - backed by actual materials (usu. Ag, Au)

Fiat - backed by people's faith in the value
since 1971

$$\begin{array}{r} 5) \quad 2 \times 50 = 100 \\ \quad 3 \times 20 = 60 \\ \quad 13 \times 5 = 65 \\ \hline \quad \quad \$223.00 \\ \quad - 223.80 \\ \hline \quad \quad \$1.20 \end{array}$$

$$\begin{array}{r} 9 \times 1 \times 50 \quad ,450 \\ 8 \times 5 \times 40 \quad 1600 \\ 2 \times 10 \times 50 \quad 1000 \\ 7 \times 25 \times 40 \quad 7000 \\ \hline \quad \quad \$100.50 \end{array}$$

$$\begin{array}{r} 6) \quad 36 \times 1 = 136 \\ \quad 68 \times 5 = 340 \\ \quad 51 \times 10 = 510 \\ \quad 37 \times 25 = 925 \\ \quad 5 \times 50 = 250 \\ \hline \quad \quad \$20.61 \end{array}$$

1.2 How Money is Created

10/28/15

Why don't they just print more money?

IWBAT

- Learn how money is created.
- Understand the role of Treasury bonds and the Federal Reserve.
- Understand the concept of fractional-reserve banking.

Via

- Capturing notes on my graphic organizer/note frame
- Whole class discussions to introduce and clarify key concepts
- Completing practice problems collaboratively with teacher support

1.2 How Money is Created

10/28/15

bank — a place where you store money securely
can exchange different denominations
Loan money

securities — investments

Federal Reserve Bank — national bank for the USA
Where Congress goes for its spending money.

Tax money

IWBAT learn how money is created, understand the role of Treasury bonds and the Federal Reserve, and understand the concept of fractional-reserve banking.

1.2 How Money is Created

10/28/15

Federal Reserve Bank

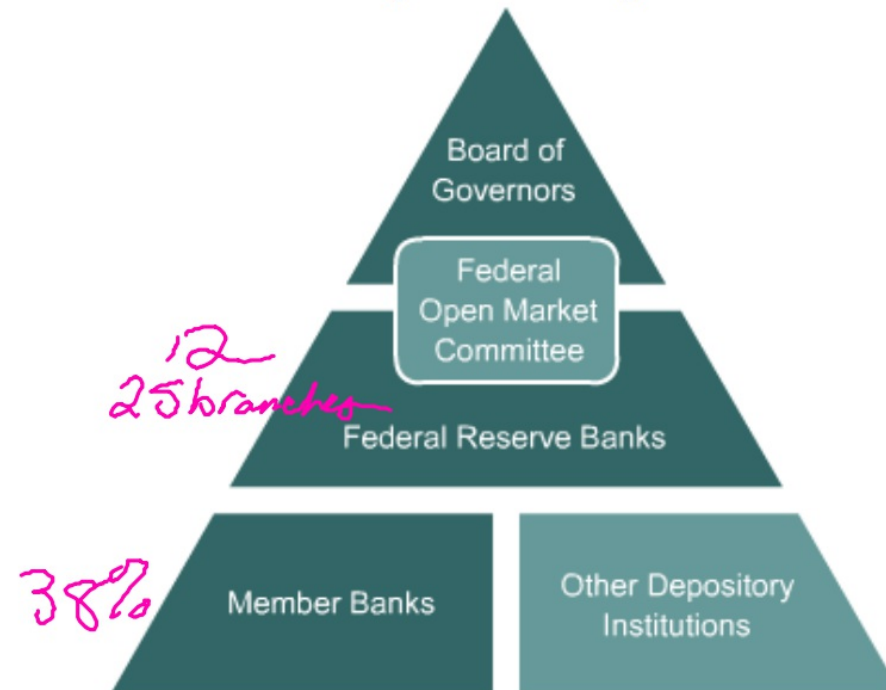
Chairman of the Board of Governors (Fed Chair)

Last three:

Alan Greenspan (8/1987-1/2006)

Ben Bernanke (2/2006-2/2014)

Janet Yellen (2/2014-)



IWBAT learn how money is created, understand the role of Treasury bonds and the Federal Reserve, and understand the concept of fractional-reserve banking.

1.2 How Money is Created

10/28/15

According to the Federal Reserve, a few of the many benefits of a sound monetary policy are:

- It promotes stable economic growth.
- It ensures that employment levels are not too low.
- It helps keep prices stable.

IWBAT learn how money is created, understand the role of Treasury bonds and the Federal Reserve, and understand the concept of fractional-reserve banking.

1.2 How Money is Created

10/29/15

The three main tools that the Federal Reserve uses to enact monetary policy are:

- **open market regulation** — The purchase and sale of U.S. Treasury and federal-agency securities such as Treasury bonds.
- **discount rate** — The interest rate charged to commercial banks on loans they receive from the Federal Reserve.
- **reserve rate** — The amount of funds that a bank must hold in reserve. The rate is given as a percentage of the total deposits.

IWBAT learn how money is created, understand the role of Treasury bonds and the Federal Reserve, and understand the concept of fractional-reserve banking.

1.2 How Money is Created

10/29/15

bond - a promise by an institution to pay an investor the full amount borrowed plus periodic interest

US Treasury bond -

- 1) gov't asks US Treasury for money
- 2) UST issues bonds
- 3) UST sells bonds to banks often foreign
- 4) UST gives money to gov't
- 5) populace pays UST via taxes

IWBAT learn how money is created, understand the role of Treasury bonds and the Federal Reserve, and understand the concept of fractional-reserve banking.

1.2 How Money is Created

10/29/15

How does the Fed buying & selling bonds affect you?

Buy from a bank, gives the bank money,
the bank loans out the money,
interest rate decreases

Sell to the bank, bank has less money
available, bank cannot loan as much,
interest rates increase

IWBAT learn how money is created, understand the role of Treasury bonds and the Federal Reserve, and understand the concept of fractional-reserve banking.

1.2 How Money is Created

Fractional Reserve Banking

reserve rate

10/29/15

Liability Type	Requirement	
	% of liabilities	Effective date
Net transaction accounts ¹		
\$0 to \$14.5 million ²	0	1-22-15
More than \$14.5 million to \$103.6 million ³	3	1-22-15
More than \$103.6 million	10	1-22-15
Nonpersonal time deposits	0	12-27-90
Eurocurrency liabilities	0	12-27-90

<http://www.federalreserve.gov/monetarypolicy/reservereq.htm>

Nonpersonal time deposit - A deposit account that is held by a depositor such as corporations, foreign banks, and bank corporate customers other than individuals; an example is a money market. This account pays a fixed amount for a period of time and it requires advance notice before money can be withdrawn from it. Advance notice has to be issued in order not to incur an early withdrawal penalty. (investorwords.com)

eurocurrency liabilities

<http://definitions.uslegal.com/e/eurocurrency-liabilities/>

IWBAT learn how money is created, understand the role of Treasury bonds and the Federal Reserve, and understand the concept of fractional-reserve banking.

1.2 How Money is Created

Fractional Reserve Banking

10/29/15

10/30/15

- Read: "How Banks Make Money"
- Discuss with a partner what you understand and about what you still have questions
- Create with your partner a statement explaining what you understand about fractional reserve banking.
- Be prepared to share with the class.
- Listen to other students' statements for answers to your questions.
- Ask any unanswered questions.

IWBAT learn how money is created, understand the role of Treasury bonds and the Federal Reserve, and understand the concept of fractional-reserve banking.

1.2 How Money is Created

10/30/15

Assume the reserve rate is 10%, that a bank receives a deposit of \$650, and that all transactions take place at the same bank. How much of that original \$650 can a bank loan out? How many loans can the bank make from that one deposit?

5 loans

IWBAT learn how money is created, understand the role of Treasury bonds and the Federal Reserve, and understand the concept of fractional-reserve banking.

1.2 How Money is Created

10/30/15

Assume the reserve rate is 10%, that a bank receives a deposit of \$1200, and that all transactions take place at the same bank. How much of that original \$1200 can a bank loan out? How many total dollars can the bank loan from this original investment?

IWBAT learn how money is created, understand the role of Treasury bonds and the Federal Reserve, and understand the concept of fractional-reserve banking.

1.2 How Money is Created

10/30/15

Why don't they just print more money?

Vocabulary: Appendix A.3 Key Terms

Exit Ticket: What is a treasury bond and why are they needed?

IWBAT learn how money is created, understand the role of Treasury bonds and the Federal Reserve, and understand the concept of fractional-reserve banking.

1.3 Inflation & Recession

10/30/15

Why doesn't the Federal Reserve Bank just
print more money?

1.3 Inflation & Recession

10/30/15

Define inflation, deflation, and recession

11/03/15

inflation – prices get bigger (increase)
1%-3% healthy dollars do not buy as much

deflation – prices decrease
dollars buy more

recession – prolonged deflation
(months)

IWBAT

- discuss inflation, deflation, and recession.

Via

- Capturing notes on my graphic organizer/note frame
- Whole class discussions to introduce and clarify key concepts
- Completing practice problems collaboratively with teacher support

1.3 Inflation & Recession

11/03/15

Purchasing power - *the ability to use money to make purchases*

Inflation - *purchasing power decreases*
wages increase, prices increase, profits increase

Deflation - *purchasing power increases*
prices decrease, wages decrease, profits decrease,
layoffs, businesses close

IWBAT discuss inflation, deflation, and recession.

1.3 Inflation & Recession

11/03/15

Federal Reserve Bank - stores tax money, loans money to banks & gov't, borrows money from banks, controls interest rates

Consumer Price Index (CPI) - compares the cost of living in each city to the average for the nation

Fluctuation -



IWBAT discuss inflation, deflation, and recession.

1.3 Inflation & Recession

11/03/15

Recession - deflation over a long period (months)
prices go down, people lose jobs,
houses foreclosure
Great Recession unemployment $\sim 10\%$

Depression - like a recession (worse) lasts years
Great Depression unemployment $\sim 40\%$

IWBAT discuss inflation, deflation, and recession.

Recent US Recessions:

- July 1981 – November 1982: 14 months
- July 1990 – March 1991: 8 months
- March 2001 – November 2001: 8 months
- December 2007 – June 2009: 19 months

IWBAT discuss inflation, deflation, and recession.

Vocabulary: Appendix A.3 Key Terms
Practice: 1.3.2

Quiz 2.6.2

IWBAT discuss inflation, deflation, and recession.

1.4 National and Global Debt

11/04/15

In your own words, explain who would benefit from inflation and who would benefit from deflation.

inflation — factories / mfr. , banks - loans ,
gov't via increased taxes , retailers ,
thrift stores / dollar stores

deflation — savers , drivers , pawn shop

1.4 National and Global Debt

11/04/15

Scientific Notation

Sixteen point one trillion dollars

\$16 100 000 000 000.
 $\$1.61 \times 10^{13}$

\$294,443 million
 $\$2.94443 \times 10^{11}$

IWBAT discuss debt, deficit, GDP, debt ratio, and use scientific notation to represent large numbers.

IWBAT

- discuss debt, deficit, GDP, debt ratio,
- use scientific notation to represent large numbers.

Via

- Capturing notes on my graphic organizer/note frame
- Whole class discussions to introduce and clarify key concepts
- Completing practice problems collaboratively with teacher support

1.4 National and Global Debt

11/04/15

Debt vs. Deficit

debt- what you owe

deficit- spending more than you earn

Public Debt & Intragovernmental Debt

public debt is owed to the populace (you)

Intragovernmental debt includes items like Medicaid, Social Security, and monies borrowed from one department to pay another department.

IWBAT discuss debt, deficit, GDP, debt ratio, and use scientific notation to represent large numbers.

1.4 National and Global Debt

11/04/15

Liabilities and Assets

Liabilities - what you owe to someone
(mortgage, student loans, credit card balance)

Assets - are what you own that
have value to someone and can be
sold to cover a debt
(jewelry, antiques, car, house)

IWBAT discuss debt, deficit, GDP, debt ratio, and
use scientific notation to represent large numbers.

1.4 National and Global Debt

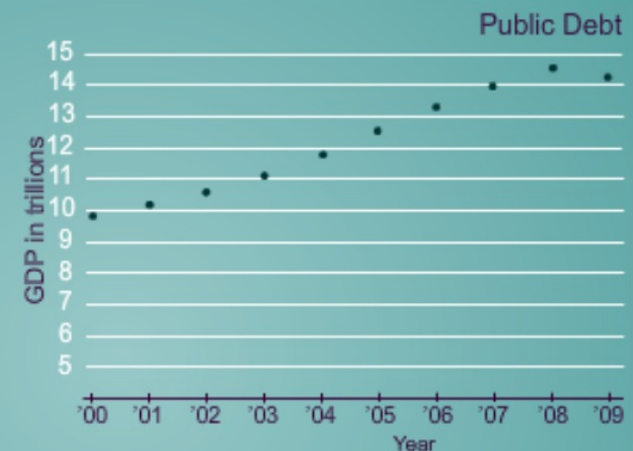
Gross Domestic Product (GDP)

11/04/15
11/05/15

Category	Description
Consumer Purchase	All goods and services purchased, such as gasoline
Investment	Business and residential investments, such as machinery or houses
Government Spending	All spending on education, defense, employee salaries, etc.
Net Exports	Exports sold abroad minus imports purchased domestically

Here is the approximate GDP for the United States from 2000 to 2009.

Year	GDP
2000	9,951,500,000,000
2001	10,286,100,000,000
2002	10,642,300,000,000
2003	11,142,100,000,000
2004	11,867,800,000,000
2005	12,638,400,000,000
2006	13,398,900,000,000
2007	14,077,600,000,000
2008	14,441,400,000,000
2009	14,240,200,000,000



IWBAT discuss debt, deficit, GDP, debt ratio, and use scientific notation to represent large numbers.

1.4 National and Global Debt

11/05/15

Debt to GDP ratio		2009	2007
$\frac{\text{debt}}{\text{GDP}}$	$\frac{2008}{\$14.6t}$	$\frac{\$14.1t}{\$14.2t}$	$\frac{\$14.0t}{\$14.1t}$
	$= 103.9\%$	$= 99.3\%$	$= 99.3\%$

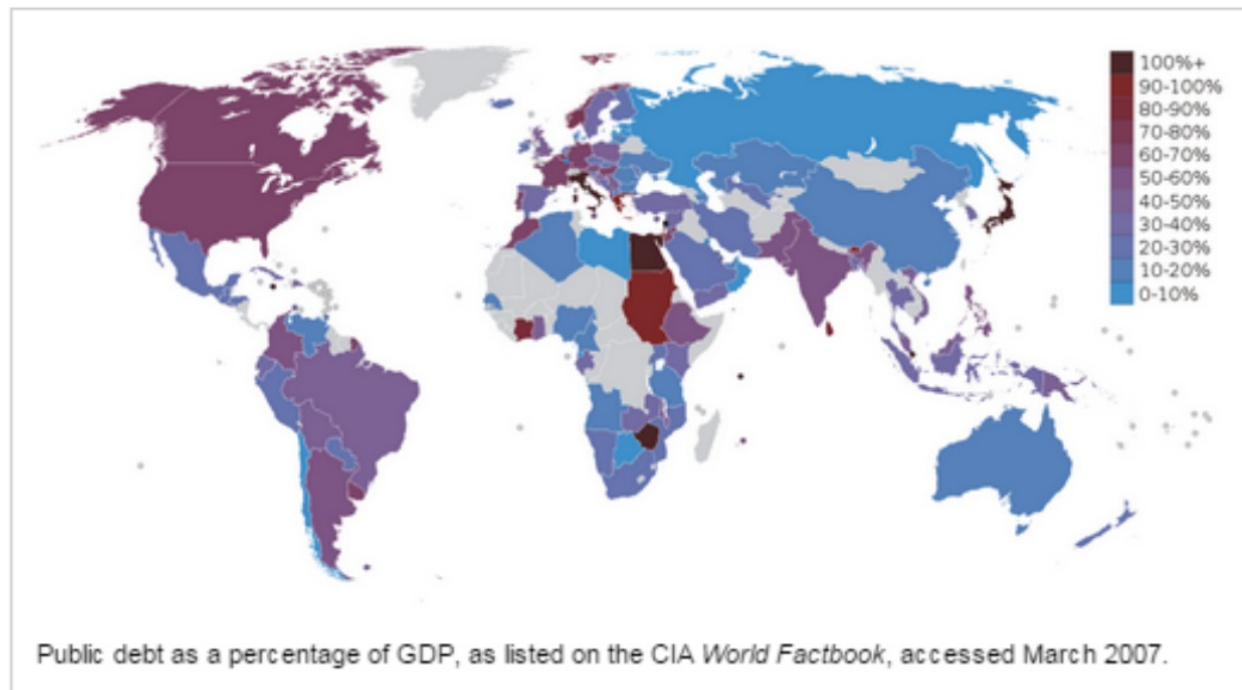
This is done to make comparisons between countries' spending easier by putting small economies on the same scale as large economies.

IWBAT discuss debt, deficit, GDP, debt ratio, and use scientific notation to represent large numbers.

1.4 National and Global Debt

Global Debt

11/05/15



<https://www.cia.gov/library/publications/the-world-factbook/>

Who holds our debt?

IWBAT discuss debt, deficit, GDP, debt ratio, and use scientific notation to represent large numbers.

Vocabulary: Appendix A.3 Key Terms
Practice: 1.4.2

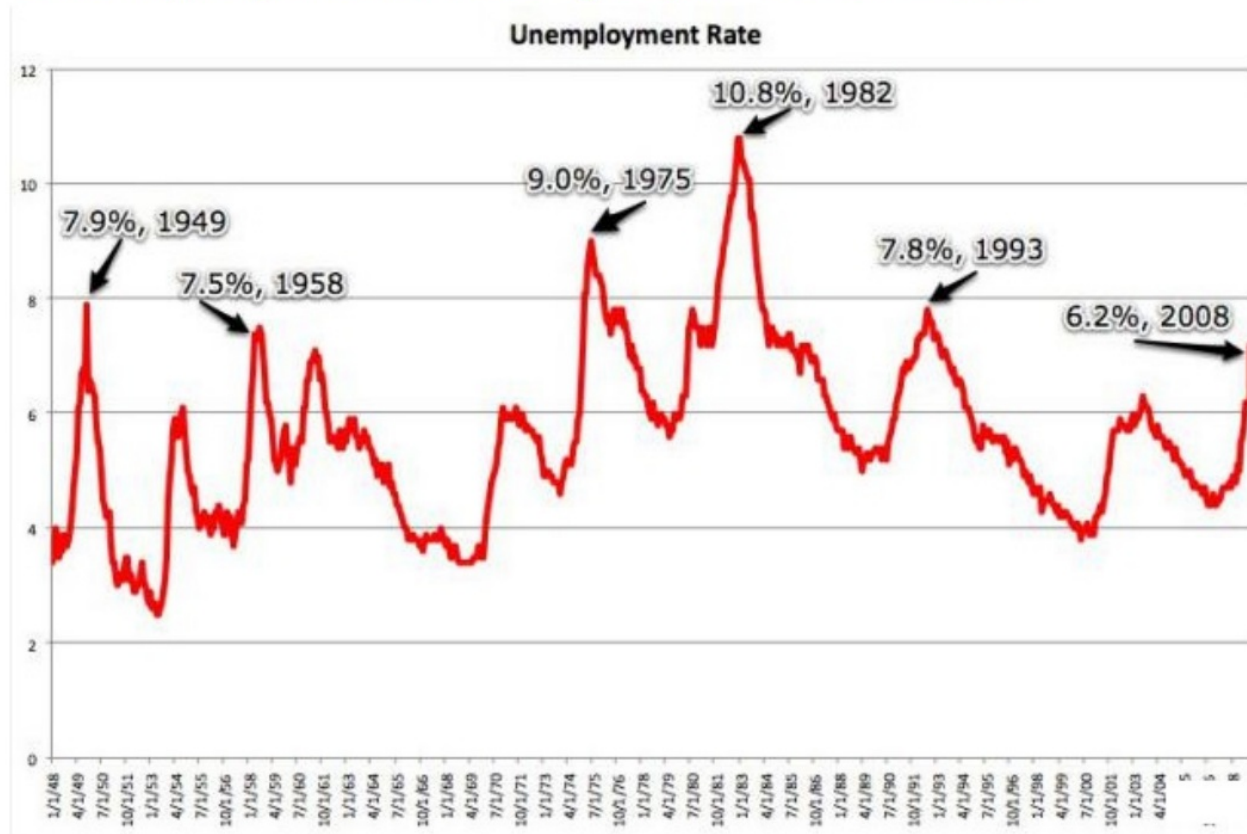
If a country's debt-to-GDP ratio is currently 50% and its debt is expected to grow from \$10 trillion to \$15 trillion in the next 20 years, what will the country's GDP have to be in 20 years to maintain the current debt-to-GDP ratio?

IWBAT discuss debt, deficit, GDP, debt ratio, and use scientific notation to represent large numbers.

1.4 National and Global Debt

11/06/15

Unemployment rate graph 1948-2008



2008 6.2%, 2009 7.8%, 2010 9.8%, 2011 9.2%

What do you notice? Are there any trends?

When was the unemployment the lowest? The highest?

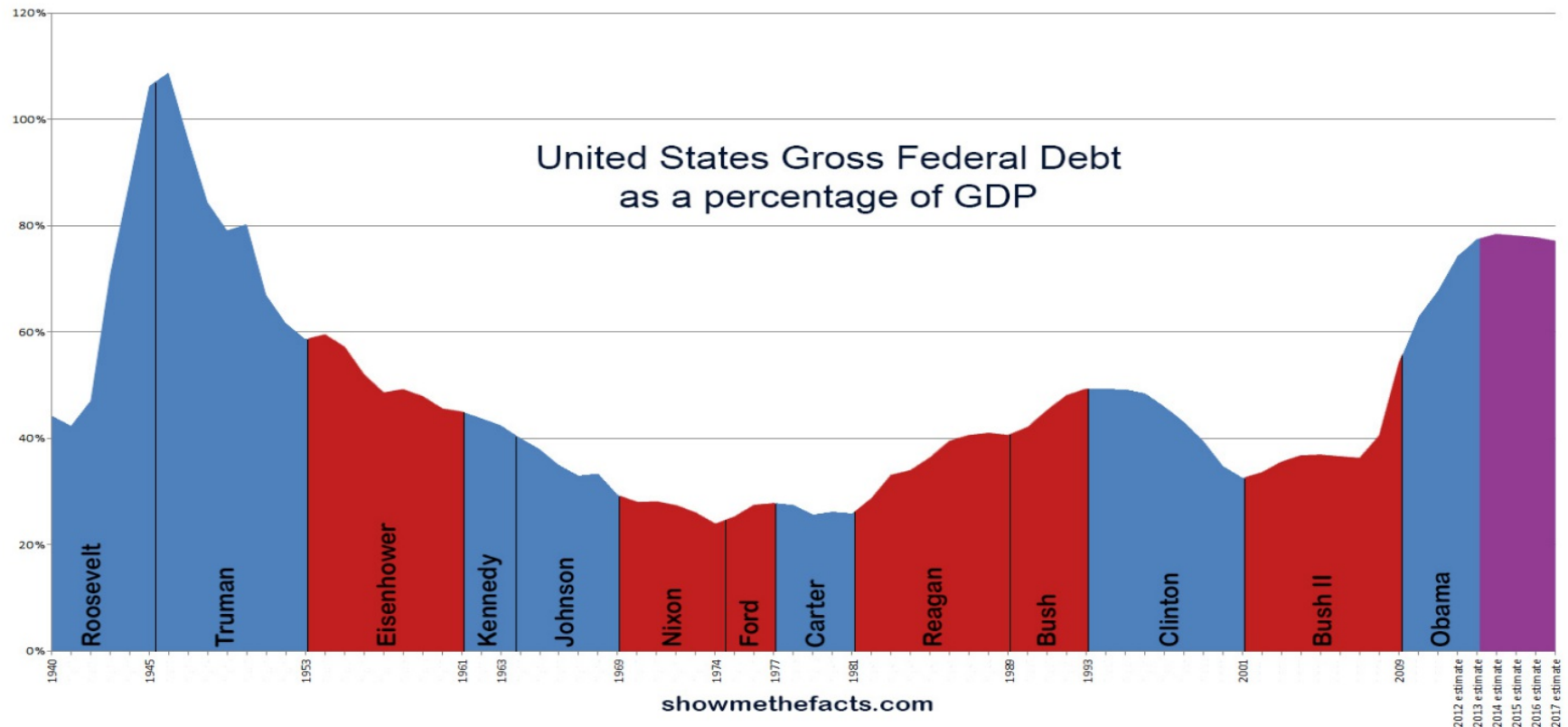
What was happening historically at that time?

IWBAT discuss debt, deficit, GDP, debt ratio, and use scientific notation to represent large numbers.

1.4 National and Global Debt

11/06/15

US Debt to GDP ratio graph 1940-2012



What do you notice? Are there any trends?
When was the debt ratio the lowest? The highest?
What was happening historically at that time?

IWBAT discuss debt, deficit, GDP, debt ratio, and use scientific notation to represent large numbers.

Fed Chief Says a Rate Hike in December Is Still a Possibility

Read the article & discuss at your table:

- On what are they basing their decision?
- Why have they not raised rates since last spring?

Be prepared to share your group's thinking.

IWBAT discuss debt, deficit, GDP, debt ratio, and use scientific notation to represent large numbers.

1.4 National and Global Debt

11/10/15

Treasury "Major Foreign Holders of Treasury Securities"

Limiting our observations to the countries from #1-17
(currently China through Mexico):

- Which country is the largest holder of US debt?
- How do they compare to the second-largest?
- How do they compare to the third largest?
- What is the general trend in debt owed to the top 17 countries?
- Are there any countries which are contrary to this trend?
- Are there any countries which stand out for large changes in the amount of debt owed to them?

IWBAT discuss debt, deficit, GDP, debt ratio, and
use scientific notation to represent large numbers.

1.4 National and Global Debt

11/10/15

Treasury "Major Foreign Holders of Treasury Securities"

Please note your observations and conclusions here.

IWBAT discuss debt, deficit, GDP, debt ratio, and
use scientific notation to represent large numbers.

1.4 National and Global Debt

11/10/15

WSJ article "The Legacy of Debt" Feb. 2015

- Read the article with a partner.
- Write a statement of your understanding of the article.
- Be prepared to share your understanding with another group.
- Come up with a combined group understanding statement to be shared with the class and turned in.

Partner statement:

IWBAT discuss debt, deficit, GDP, debt ratio, and use scientific notation to represent large numbers.

Three trillion
two-hundred billion 3200,000,000,000 3.2×10^{12} 11/09/15

Five billion
Three-hundred million 5300000000 5.3×10^9

Eight million
Nine-hundred thousand 89 $\times 10^6$

trillion	1×10^{12}
billion	1×10^9
million	1×10^6
thousand	1×10^3
hundred	1×10^2
ten	1×10^1

11/09/15

GDP debt

$$\frac{\text{debt}}{\text{GDP}} = \frac{32,520,000,000}{15,300,650,000}$$

$$\frac{3.252 \times 10^{10}}{1.53 \times 10^{10}} = 212\%$$

$$\frac{X}{80,000,000,000} = 80\%$$

0.8

$$8.0 \times 10^{11} \quad 8.0 \times 10^{-1}$$

$$64 \times 10^{10}$$

$$6.4 \times 10^{11}$$

11/09/15

$$\frac{2012 \text{ debt}}{\text{GDP}} > \frac{2013 \text{ debt}}{\text{GDP}}$$

$$\frac{12}{20} > \frac{12}{\boxed{25}}$$

$$\frac{12}{20} > \frac{10}{25}$$

$$\frac{12}{20} > \frac{13}{25}$$

1.5 Other Forms of Currency

11/09/15

If a country's debt-to-GDP ratio is currently 50% and its debt is expected to grow from \$10 trillion to \$15 trillion in the next 20 years, what will the country's GDP have to be in 20 years to maintain the current debt-to-GDP ratio?

$$\cancel{x} \cdot \frac{\$15t}{\cancel{x}} = 50\% \cdot x$$

$$\frac{\$15t}{50\%} = \frac{50\% \cdot x}{50\%}$$

$$\frac{\$15t}{.5} = x$$

$$\$30t = x$$

1.5 Other Forms of Currency

11/09/15

APK: Name other currencies known to you and the countries in which they are used.

Pesos Mexico

Dollars US

Euros EU

Pounds GB

IWBAT

- Explore the relationship between two currencies.

Via

- Capturing notes on my graphic organizer/note frame
- Whole class discussions to introduce and clarify key concepts
- Completing practice problems collaboratively with teacher support

1.5 Other Forms of Currency

11/09/15

According to the CIA World Factbook, as of 2007 there were roughly 182 different currencies, making up a grand total of \$12.35 trillion.

United States	\$1	USD
Canada	\$1	CAN
Great Britain	£1	GBP
European Union	€1	EUR
New Zealand	\$1	NZD
Australia	\$1	AUS
Switzerland	1SF	CHF
Japan yen	1¥	JPN
China yuan	1¥	CHN
Mexico	\$1	MXN

IWBAT explore the relationship between two currencies.

1.5 Other Forms of Currency

11/09/15

Cost of Currency Exchange

■ Jigsaw 1-4

#1 paragraphs 1-5

#2 p. 6-11

#3 p. 12-end

- You will read and discuss your section with your group. You must justify your analysis with evidence from the section.
- You will then regroup with an expert from the other two sections and teach them your section. The two who are not presenting must come up with a question or comment using the accountable talk sentence stems from the poster.

1.5 Other Forms of Currency

11/09/15

If a country's debt-to-GDP ratio is currently 30% and its debt is expected to grow from \$8 trillion to \$19 trillion in the next 20 years, what will the country's GDP have to be in 20 years to maintain the current debt-to-GDP ratio?

$$\begin{aligned} & \cancel{X} \frac{\$19t}{\cancel{X}} = 30\% \cdot X \\ & \frac{19t}{30\%} \qquad \frac{30\% \cdot X}{30\%} \\ & \frac{\$19t}{.3} = X \\ & \$63.3t = X \end{aligned}$$

IWBAT explore the relationship between two currencies.

1.5 Other Forms of Currency Exchange Rate

11/09/15

If \$1 = 6.25 ¥, then \$250 = 1562.5 ¥.

If 0.89 EUR = 1USD, then 250USD = 222.5 EUR.

If MX\$1 = \$0.07, then MX\$250 = \$17.50.

IWBAT explore the relationship between two currencies.

1.5 Other Forms of Currency

11/09/15

Foreign Exchange market (forex)

<http://www.youtube.com/watch?v=zklAlpBnWkw>

... a global decentralized market for the trading of currencies. In terms of volume of trading, it is by far the largest market in the world. The main participants in this market are the larger international banks.

(http://en.wikipedia.org/wiki/Foreign_exchange_market)

For further explanation:

<http://www.youtube.com/watch?v=14FbmDpoTdE>

IWBAT explore the relationship between two currencies.

1.5 Other Forms of Currency

Currency Quote

11/09/15

€100
\$140.20



\$140.26
€100

IWBAT explore the relationship between two currencies.

1.5 Other Forms of Currency

Exchange Rate Board

11/09/15

1 Baht (Thailand)

$\$1 \Rightarrow \text{b } 35.03$

$\text{b } 36.10 \Rightarrow \1

Currency		Buying	Selling
		Notes	Notes
USA	USD	35.03	36.10
EURO	EUR	45.72	46.86
ENGLAND	GBP	68.96	70.90
JAPAN	JPY	0.2879	0.2971
SINGAPORE	SGD	22.89	23.59
HONG KONG	HKD	4.47	4.66
AUSTRALIA	AUD	27.08	27.97
NEW ZEALAND	NZD	24.18	25.31

IWBAT explore the relationship between two currencies.

1.5 Other Forms of Currency

11/09/15

Vocabulary: Appendix A.3 Key Terms

1. If $1 \text{ GBP} = 1.5628 \text{ USD}$, then how many USD can you exchange for 550 GBP?

2. If $1 \text{ GBP} = 1.5628 \text{ USD}$, then how many GBP can you exchange for 300 USD?

IWBAT explore the relationship between two currencies.

1.6 What is Money? wrap-up

11/11/15

Calculate the exchange values for two currencies.

1. If 1 GBP = 1.5628 USD, then how many USD can you exchange for 550 GBP?

$$\begin{array}{r} 550 \\ \text{GBP} \end{array} \times \begin{array}{r} 1.5628 \\ \text{USD} \\ \hline \text{GBP} \end{array} = \begin{array}{r} 859.54 \\ \text{USD} \end{array}$$

2. If 1 GBP = 1.5628 USD, then how many GBP can you exchange for 300 USD?

$$\begin{array}{r} 300 \text{ USD} \\ \hline 1.5628 \text{ USD} \\ \hline \text{GBP} \end{array} = \begin{array}{r} 191.96 \\ \text{GBP} \end{array}$$

1.6 What is Money? wrap-up

11/11/15

Review money uses

<http://www.youtube.com/watch?v=TBv3F6ckzcU>

Review fractional reserve banking.

<http://www.youtube.com/watch?v=qIxhsF6JLEA>

Review Foreign Exchange market (ForEx).

<http://www.youtube.com/watch?v=-qvrRRTBYAk>

1.6 What is Money? wrap-up

11/11/15

1.6.2 Practice problems

#1-8, 10, 12, 13, 15-20

#9

$$\text{Money multiplier} = \frac{1}{r}$$

#11

$$\$30000 * \frac{1}{7\%} = \$428571.42$$

$$\$30000 * \frac{1}{5\%} = \$600000$$

$$\$600000 - 428571.42 = \$171428.58 \text{ more}$$

#14

stagnation - a prolonged period of little or no growth in the economy.